

TITLE:

Request for Proposals—Cooperative Agreements for Water Security Training for Community Water Systems Serving 50,000 to 100,000 Persons

1. UPDATES TO THIS REQUEST FOR PROPOSALS

Please periodically refer to the EPA website containing this Request For Proposals (RFP) for postings of supplemental information relevant to applying for these cooperative agreements. The URL for this RFP is: http://www.epa.gov/safewater/security/pdfs/train2_rfp.pdf

2. PURPOSE AND BACKGROUND

This new cooperative agreement program will assist a number of nonprofit organizations in providing training to the approximately 480 large/medium community water systems (CWS)--those serving between 50,000 and 100,000 persons--in conducting their vulnerability assessments (VA) and in performing related emergency response planning as described below. The cooperative agreement program complements the work conducted under EPA's large system VA grant program and the support EPA has given states to assist small CWSs. All three actions contribute to EPA's broad effort to reduce the vulnerabilities of all CWSs.

On June 12, 2002, President Bush signed the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Bioterrorism Act) into Law (PL 107-188). The Bioterrorism Act amends the Safe Drinking Water Act in several areas, including adding Section 1433 that establishes a mandatory requirement that CWSs serving 3,301 persons or more conduct VAs, certify to EPA that the VAs were conducted, and submit a copy of the completed VA to EPA. That Act also, under Section 1433(b), requires that these same CWSs prepare or revise Emergency Response Plans (ERPs) and certify to EPA that an ERP has been completed.

3. TASKS TO BE PERFORMED UNDER THIS COOPERATIVE AGREEMENT PROGRAM

Proposals must describe how the recipient would perform the following four tasks for CWSs that serve 50,000 to 100,000 persons:

- Task 1. Train CWS staff to conduct a VA using a VA methodology that is appropriate for the system. This is the primary focus of the training to be accomplished by successful cooperative agreement recipients under this

RFP.

- Task 2. Train CWS staff to develop and/or upgrade an ERP that considers the vulnerabilities identified in the VA and that positions the CWS to improve its response to and recovery from, an attack or other emergency.

Note for Tasks 1 and 2: The Agency estimates that two persons per CWS will be trained, during each workshop (length of workshop is dependent on the complexity of the VA methodology chosen).

Task 3 shall also be performed to assist some CWSs, depending on available funding, and the CWSs' need for such help:

- Task 3 Provide a one-day (8-hour workday or equivalent if spread over more than one day) VA technical followup consultation to CWSs, which have been trained in the above three areas, to resolve issues that arose during conduct of the VA. These consultations are optional and will only be conducted at the CWSs' request. (No information on a CWS' vulnerabilities that is gathered during these consultations will be provided to EPA by the cooperative agreement recipients, however under the Bioterrorism Act, the CWS must provide their completed VA to EPA.) As part of this followup service, cooperative agreement applicants should consider setting up a hotline that systems can use to raise questions as they conduct their VAs.

Notes that are applicable to all Tasks:

1. Coordination with state and local governments This cooperative agreement program complements the water system security grants given to states¹ and territories by providing the needed water security experts/trainers to these groups that can be then utilized in state water security programs. Recipients under this program must coordinate with state drinking water authorities, tribes, and local authorities to avoid any duplication of effort and to maximize the utility of the funding received.
2. Uniformity of Training A programmatic condition will be included in all cooperative agreements, which will require all recipients under this

¹This \$21M grant program assisted states in improving drinking water system security for CWSs serving fewer than 100,000 people. Eligible activities under these grants included: 1) ensuring the quality of drinking water system vulnerability assessments through technical assistance, training and tool distribution; 2) preparing, amending or updating emergency response plans to meet new requirements or security threats through technical assistance, training and tool distribution; and 3) improving communication with drinking water systems.

program to conform to EPA's policies regarding vulnerability assessments and other elements involved in complying with the Bioterrorism Act.

4. STATUTORY AUTHORITY

Sections 1433, added to the Safe Drinking Water Act via Title IV, "Drinking Water Security and Safety," of the "The Public Health Security and Bioterrorism Preparedness and Response Act" (P.L. 107-188).

5. REGULATORY AUTHORITY

40 CFR Part 30, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-profit Organizations:

http://www.access.gpo.gov/nara/cfr/waisidx_01/40cfr30_01.html

6. ELIGIBILITY FOR THIS PROGRAM

Non-profit organizations capable of providing training and technical assistance to drinking water systems as described in this RFP are eligible to apply for this funding. Note that 501(c)(4) non-profit organizations that lobby are not eligible.

7. PROPOSAL REVIEW AND SELECTION PROCESS

EPA will review and evaluate proposals and make cooperative agreement awards based upon the applicant's ability to meet the **EVALUATION AND SELECTION CRITERIA**, stated below. This program is competitive, and eligible non-profit organizations that can demonstrate that they meet the Criteria may apply. EPA has allocated \$1,700,000 for this cooperative agreement program and will make awards of up to this amount to a single organization, if that organization demonstrates that it is the best of the cooperative agreement applicants and is capable of performing all of the work. EPA may also make several awards of lesser amounts if EPA deems this to be a prudent decision to most effectively accomplish this training program quickly and cost-effectively across the US. **Note:** EPA reserves the right to reject all proposals and make no award.

Approximate Timeline

- Proposals must be received on or before 4:00 pm Eastern Time April 17, 2003.
- Proposal review will occur from April 17– May 1, 2003.
- Final cooperative agreement recipients will be announced in May, 2003.

8. EVALUATION AND SELECTION CRITERIA

All proposals will be evaluated according to the following criteria through a point system (100 points total):

(In all paragraphs in this section, “applicant” means the cooperative agreement applicant, its staff, and any subcontractors or subgrantee staff that will be used to complete the program.)

- A. **Mandatory** Demonstrated training experience of the cooperative agreement applicant in VA methodologies including some or all of the following established methodologies **(40 POINTS)**:
 - o Risk Assessment Methodology for Water (RAM-W; developed by the American Water Works Association Research Foundation and Sandia National Laboratory) and the related RAM-W methodology revised to better accommodate smaller systems’ vulnerabilities,
 - o Vulnerability Self-Assessment Tool for Water and the similar tool for wastewater (VSAT; developed by the Association of Metropolitan Sewerage Agencies),
 - o Other VA methodologies that meet the Six Key Elements of a VA and are suitable for systems serving more than 50,000 persons as shown in Appendix A of this RFP. The applicant must provide EPA with documentation on VA methodologies other than those cited above so that EPA can determine that the methodology addresses the elements shown in Appendix A. EPA may request additional information on such other methodologies that are proffered by cooperative agreement applicants. EPA will use its discretion in determining appropriateness and validity of the demonstrated experience in methodologies listed under this paragraph and in such other methodologies that may be proffered by cooperative agreement applicants. EPA’s decision to reject applicants demonstrating inadequate experience in this criterion alone, are final.
- B. Demonstrated experience of the applicant, in training in ERP development. **(10 POINTS)**
- C. Demonstrated capability of the applicant to organize, launch, execute, and complete a large-scale, nationwide, training program in a short period of time (approximately 7 months from date of award to completion of program). **(20 POINTS)**
- D. Demonstrated knowledge of water systems and experience of the applicant in providing training to technical/industrial audiences that may compose a drinking water utility’s staff including engineers, technicians, and senior industrial/utility

managers. **(10 POINTS)**

- E. Demonstrated experience of the applicant, in *performing* VAs. This element is required so that the applicant can properly provide the CWSs a one-day technical consultation to help them resolve a system's real and practical problems that may arise during VA development. **(10 POINTS)**
- F. Demonstrated experience in working with state officials to implement drinking water programs. This includes but is not limited to issue resolution, communications, data management, and policy interpretation. **(10 POINTS)**

9. DISPUTE RESOLUTION PROCESS

Procedures at 40 CFR 30.63 apply.

10. DEFINITIONS OF TERMS USED IN THIS PROGRAM RFP

For purposes of this cooperative agreement program solicitation, we provide the following definitions:

– **Vulnerability Assessment (VA).** (See also, APPENDIX A.)

VAs help an organization evaluate susceptibility to potential threats and identify corrective actions that can reduce or mitigate the risk of serious consequences from adversarial actions. Such an assessment for a water system takes into account the vulnerability of the water supply (both ground and surface), transmission, treatment, and distribution systems. It also considers risks posed to the surrounding community related to attacks on the water system. An effective VA serves as a guide to the water utility by providing a prioritized plan for security upgrades, modifications of operational procedures, and/or policy changes to mitigate the risks and vulnerabilities to the utility's critical assets. The VA provides a framework for developing risk reduction options and their associated costs. Preferably, a VA is "performance-based," meaning that it evaluates the risk to the water system based on the effectiveness (performance) of existing and planned measures to counteract adversarial actions.

The VA process will range in complexity based on the design and operation of the water system itself. The nature and extent of the VA will differ among systems based on a number of factors, including system size, potential population affected, source water, treatment complexity, system infrastructure and other factors. Security and safety evaluations also vary based on knowledge and types of threats, available security technologies, and applicable local, state and federal regulations. Regardless of these complexities and nuances, the following are common elements of VAs. These elements

are conceptual in nature and not intended to serve as a detailed methodology:

1. Characterization of the water system, including its mission and objectives;
2. Identification and prioritization of adverse consequences to avoid;
3. Determination of critical assets that might be subject to malevolent acts that could result in undesired consequences;
4. Assessment of the likelihood (qualitative probability) of such malevolent acts from adversaries;
5. Evaluation of existing countermeasures; and
6. Analysis of current risk and development of a prioritized plan for risk reduction.

It will be helpful to remember throughout the VA process, the ultimate goal is twofold: to safeguard public health and safety, and to reduce the potential for disruption of a reliable supply of pressurized water.

–Emergency Response Plan (ERP) The ERP is a guide for water systems upon which actions and decisions can be based to govern the immediate response to an emergency, including how a system will remedy the problems caused by the emergency and recover from it. The intent of the ERP is to identify certain responsibilities delegated to various teams and employees, present details of the notification procedures, and describe alternate measures and response actions. The ERP should also incorporate the results of any VA that were completed. The ERP is not intended to be inclusive for each situation or problem that arises and should be updated periodically for continued relevance and viability. It must also comply with applicable state and local ordinances and requirements.

11. ASSEMBLING THE APPLICATION FOR THESE COOPERATIVE AGREEMENTS

To apply, you must submit all of the following documents, which will constitute a completed cooperative agreement application. Each of these blank forms can be downloaded from this web site: <http://www.epa.gov/ogd/AppKit/application.htm>

If any of the required forms are not submitted, EPA will contact you. Please make every effort to submit a complete application to avoid delays in processing your application.

A. _____SF-424 APPLICATION FOR FEDERAL ASSISTANCE

The SF 424 is a standard Federal form to be used by applicants as a required cover sheet for this cooperative agreement program. Please note that the authorized representative is the person who is able to contract or obligate your organization to the terms and conditions of the cooperative agreement. **(BE SURE TO SIGN THIS FORM, preferably with BLUE INK.)** A copy of the

governing body's authorization for you to sign this application as official representative must be on file in the applicant's office.

NOTE: Block No. 10 requires a "Catalog of Federal Domestic Assistance" (CFDA) number be entered. Use CFDA Number 66.478 for this cooperative agreement program.

B. _____ SF-424A, BUDGET INFORMATION–NON-CONSTRUCTION PROGRAMS

This is a standard Federal form used by applicants to present the cooperative agreement budget.

Complete Section B - Budget Categories - Columns (1), (2) and (5). (DO NOT fill in Sections A, C, D, E, or F.) Fill in the total requirements for funds by object class categories. Please round figures to the nearest dollar.

All applications should contain a breakdown by the relevant object class categories shown in Lines (a-h): columns (1), (2), and (5) of Section B. Some lines may not apply to your application, and no figure need be entered in that case.

- Include Federal funds in column (1)

- Include non-Federal funds in Column 2. IMPORTANT NOTE ABOUT NON-FEDERAL FUNDS: If your organization elects to reflect non-federal funds (otherwise known as a "cost share") in this application, the amount should be included in the budget in column 2 of this form. Note that if your organization includes the cost share in the budget, your organization is obligated to expend the funds as shown and all funds are subject to audit. Since a cost share is not required under this cooperative agreement program, it need not be listed, and your organization will not be obligated to expend those funds.

If your organization does not elect to include its cost share on the budget, make no entry in column 2.

- Put the totals in column (5).

Line 6(i) - Show the totals of lines 6(a) through 6(h) in each column.

Line 6(j) - Show the amount of indirect costs. If your organization does not already have an approved Indirect Cost Rate, you are required to provide appropriate documentation to support your indirect costs. If your organization does not have a negotiated rate with the cognizant federal agency, EPA will provide you information at the time of award on the documentation that is required to support your indirect cost rate.

Line 6(k) - Enter the total of amounts of Lines 6(i) and 6(j).

Line 7 - Enter expected program income to be generated as a direct result of your work during the performance of this cooperative agreement. EPA expects minimal program income, since

EPA's goal of these cooperative agreements is to provide free training to the target audience to encourage maximum participation.

C. _____ SF-424B, ASSURANCES–NON-CONSTRUCTION PROGRAMS

D. _____ SF LLL, DISCLOSURE OF LOBBYING ACTIVITIES (as revised in 1996 -- If Applicable) Review the Certification Regarding Lobbying, cited below, to determine whether or not you need to complete the SF LLL.

E. _____ CERTIFICATION REGARDING LOBBYING

F. _____ FORM 5700-49, CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

G. _____ EPA FORM 4700-4, PRE-AWARD COMPLIANCE REVIEW REPORT

H. _____ NARRATIVE STATEMENT (WORK PLAN)

(This item and those that follow are not a form found on the above-noted web site.)

Please discuss the following in your Work Plan. **LIMITED TO SEVEN PAGES OF CONVENTIONAL BUSINESS-TYPEFACE (COURIER, TIMES NEW ROMAN) SINGLE-SIDED, SINGLE-SPACED TEXT, 12-POINT FONT MINIMUM:**

1. Technical Point of Contact, listing name, title, address, office phone number, fax phone number, e-mail address (**IMPORTANT:** EPA will use e-mail addresses to communicate information about this RFP and during management of the cooperative agreement awards). This person should be capable of addressing EPA's requests for additional information, if required. You should also provide an additional contact in case the primary contact is not available.
2. Any amount your organization will add to the EPA amount to complete the proposed work (i.e., "cost share"). EPA does not require a cost share for this assistance program. Note that if your organization includes the cost share in the budget, your organization is obligated to expend the funds as shown and all funds are subject to audit.
3. Project Description – This information is your opportunity to convince EPA that your training plan will meet this cooperative agreement program's objectives. Your narrative must address the following elements:

- A. Discuss how you will develop and organize the training program. Such organizational elements include:
- Determining which systems are to be trained, a methodology for determining workshop locations so that travel costs for the CWSs is minimized.
 - Discussing the number and general location (e.g., the nearest large city) of the training workshops you will provide and your capabilities to provide training to all or a portion of the 480 large/medium CWSs across the United States.

You need not propose to train all of the systems, but your description and approach should explain which geographic area(s)—and the number of systems within those areas-- your organization will capture in its training program. Your proposal should present the information so that EPA can determine how it can split the training responsibilities across the anticipated multiple cooperative agreement recipients to ensure that a majority of the CWSs will receive the training.

Eligible cooperative agreement applicants may request from the EPA information contact (RFP Section 13), a list of CWSs potentially covered by this cooperative agreement program. (Please provide the name of your organization, and contact name, phone number, and email address.)

- B. Present the unit costs planned for each workshop. EPA's funding for this program may change between the date of this RFP and the award and start of the training program. The Agency will make determinations of geographical areas to be covered by each cooperative agreement recipient based on this information. For consistency in making comparisons of unit costs, please provide details such as facility rental, printing, participant travel costs, etc.
- C. Discuss and list the other organizations that will participate in your training program and the roles those other organizations will play (VA, VA technical followup consultation, ERP, and Security Planning). EPA understands that your organization may need to draw on other organizations that are affiliated with the Cooperative agreement applicant as well as draw on other service providers to accomplish the training and provide the technical followup consultations to as many CWSs as feasible.
- D. Discuss how you will determine which CWSs will receive VA technical followup consultations, and list the estimated unit and total costs for such consultations you propose to provide. EPA's goal is to provide as many followup consultations as possible, within the budgetary constraints, after all required training has been provided.

- E. Provide a milestone schedule for organizing and completing this program. EPA's goal is to complete the training portion of the program by September 30, 2003 and complete the followup consultations by November 30, 2003. The milestones you provide should display the scheduling of the workshops and where they will be held in such a manner that EPA can be assured of reasonable progress toward completion of the program on time. You may propose an alternative schedule for completion, but bear in mind the need to complete the training and consultations with time remaining for CWSs to complete their work before the Bioterrorism Act statutory deadline of December 31, 2003.
 - F. Program Income. **EPA is providing funding with a goal of enabling the cooperative agreement recipients to provide the training free of charge to CWSs.** What sources of program income do you anticipate during this Program? All program income is to be used to perform additional training workshops and VA technical followup consultations and is not to be used to offset federal funds that will be obligated to the cooperative agreements.
 - G. Required consultation with state drinking water administrators. This RFP is being broadcast to many of EPA's drinking water partners including state drinking water administrators. Cooperative agreement applicants must coordinate the implementation of their training efforts with state drinking water administrators, tribes, and local authorities in order to avoid duplication of effort and to maximize the utility of the funding received. Applicants are to describe how they will ensure this will be accomplished.
4. Applicants should clearly mark information they consider confidential. EPA will make final confidentiality decisions in accordance with regulations at 40 CFR Part 2, Subpart B. **Applicants SHALL NOT INCLUDE IN THE Cooperative agreement APPLICATION, ANY INFORMATION ON VULNERABILITIES IDENTIFIED AS RELATED TO A SPECIFIC WATER SYSTEM.**

I. _____ DETAILED ITEMIZED BUDGET

The application must also contain a detailed budget description, and should conform to the following:

Personnel: List all participants in the project by position title. Give the percentage of the budget period for which they will be fully employed on the project (e.g., half-time for half the budget period equals 25%, full-time for half the budget period equals 50%, etc.). Give the annual salary and the total cost over the budget period for all personnel listed. Record the total also on SF-424A, Section B, Line 6(a).

Fringe Benefits: Identify the percentage used, the basis for this computation, and the types of benefits included. Record also on SF-424A, Section B, line 6(b).

Travel: If travel is budgeted, show number of trips, destinations, and purpose of travel as well as costs. Record also on SF-424A, Section B, line 6(c).

Equipment: Equipment purchases are not allowed under this cooperative agreement program. Equipment is defined as tangible, non-expendable personal property having an estimated acquisition cost of \$5,000 or more per unit and a useful life of more than one year. Items with a unit cost of less than \$5,000 are deemed to be supplies. Record also on SF-424A, Section B, Line 6(d).

Supplies: "Supplies" means all tangible personal property other than "equipment". The budget detail should identify categories of supplies to be procured (e.g., laboratory supplies or office supplies). Record also on SF-424A, Section B, line 6(e).

Contracts: Identify each proposed contract and specify its purpose and estimated cost. Consultants, also, should be itemized here. As you consider your organization's contractual needs, you may want to look at the Agency's procurement requirements under cooperative agreements.

Please go to <http://www.epa.gov/epahome/cfr40.htm>. At that site, click on "Chapter 1," "Subchapter B", and "Part 30". Then go to "30.40". For your information, the maximum hourly rate that EPA can reimburse for costs for individual consultants is limited to the maximum daily rate for a Level IV of the Executive Schedule, which is currently \$513.60 per day (\$64.20 per hour). (Both figures do not include overhead.) The portion of consultant costs above this hourly rate must be paid by your organization. Record the total Contracts cost on SF-424A, Section B, line 6(f).

Construction: Construction Costs are not allowable for this program.

Other: List each item in sufficient detail for EPA to determine the reasonableness and allowability of its cost.

Indirect Costs: Your organization is not required to charge indirect costs. If indirect charges are budgeted, indicate the approved rate and base. Please indicate how indirect charges were calculated for this project, and remember to attach a copy of your organization's current indirect cost rate agreement (next document noted below). If your organization does not already have an approved Indirect Cost Rate, EPA will require your organization to provide appropriate documentation to support indirect costs, if you are selected to receive a cooperative agreement award. Record total indirect costs also on SF-424A, Section B, Line 6(j).

Note on Allowable Costs for this cooperative agreement program: The cost principles for awards under this program will be found in OMB Circular A-122 for non-profit recipients. The related information may be viewed on this web site.

OMB Circular A-122: <http://www.whitehouse.gov/omb/circulars/a122/a122.html>

J. _____ COPY OF NEGOTIATED INDIRECT COST RATE AGREEMENT OR PROPOSAL, IF AVAILABLE (ONLY REQUIRED IF THE RECIPIENT IS CHARGING INDIRECT COSTS). If your organization does not have a negotiated indirect cost rate with a cognizant federal agency, EPA will provide you with the required documentation at the time of award.

K. _____ DOCUMENTATION DEMONSTRATING THE QUALIFICATIONS TO COMPLETE THE PROJECT

Discuss the qualifications of persons (contractor, consultant, in-house staff) who will perform the work, which is the most critical part of this cooperative agreement program.

L. _____ KEY CONTACT INFORMATION

(Not a form on the website) Please include the full name, title, address, phone number, and e-mail address of the following individuals responsible for the cooperative agreement:

- Authorized Representative - Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.
- Payee - Name and Title of individual authorized to accept payments.
- Administrative Contact - individual to contact concerning administrative matters, i.e., indirect cost rate computation, re-budgeting requests, etc.

Official notification of the actual cooperative agreement award will be made to the organization by EPA's Grants Administration Division in accordance with standard Agency practices.

12. APPLICATION DUE DATES

EPA will consider all cooperative agreement applications received on or before 4:00 pm Eastern Time, April 17, 2003, equating to one month's time from today, the date EPA is publishing this RFP. Proposals received after the due date will not be considered.

This program is competitive, and all eligible non-profit organizations that submit complete applications and satisfactory work plans by the deadline as specified in this RFP will be considered for cooperative agreement awards.

13. WHERE TO APPLY & CONTACT FOR FURTHER INFORMATION

For further information please contact Roy Rathbun at (202) 564-9932 or at rathbun.roy@epa.gov .

Since postal mail delays are to be expected that could inordinately delay EPA's receipt of applications, EPA requires that applicants use an express courier service (e.g., Fed-Ex, Airborne Express, United Parcel Service, etc) or other private courier service to deliver applications to the address below. Deliver signed original AND two hardcopies to this address:

US Environmental Protection Agency (4601M)
Attention: Roy Rathbun
Room 2104A EPA East Building
1201 Constitution Ave, NW
Washington, DC 20004

(202) 564-3750 (phone number for courier to use, if requested)

NOTE: Do NOT submit the application in any type of binder.
Do NOT use the above address for US Postal Service mail of any type.

Applicants ARE ALSO ENCOURAGED but not required to send an electronic copy of the Narrative Statement (Item H in Section 11–ASSEMBLING THE APPLICATION FOR THESE COOPERATIVE AGREEMENTS) to Roy Rathbun at the above email address. Remember that EPA must receive the signed original application and two copies at the above delivery address by the application deadline to meet the cooperative agreement application requirements.

14. PROGRAMMATIC TERMS AND CONDITIONS (Topics are described here. Exact language will be finalized prior to cooperative agreement awards)

1. Cooperative agreement recipients shall conform to EPA's policies and guidance concerning vulnerability assessments and other matters of compliance with the Bioterrorism Act.
2. EPA reserves the right to have a reasonable number of EPA employees or other persons designated by the EPA cooperative agreement project officer attend a cooperative agreement recipient's workshop(s) for purposes of ensuring quality and compliance with the terms and conditions of the cooperative agreement.
3. The cooperative agreement recipient, its contractors, subcontractors, and any other entities associated with the project are prohibited from retaining, distributing, discussing, or otherwise conveying any sensitive or confidential information regarding the security measures being taken or planned for any water system participating in this program.
4. Vulnerability assessment methodologies to be used in these training workshops shall be approved by EPA before the training proceeds.
5. Recipients must raise issues they discover that involve the training program with the EPA Cooperative Agreement Program Manager for resolution and transmittal to other

cooperative agreement recipients. Such issues may include the vulnerability assessment methodology to be applied to a given group of CWSs or other issues for which consistency across all recipients must be maintained. Recipients must agree to follow additional guidance EPA issues to all recipients that may require alterations to their training programs, if such alterations are needed in order to maintain consistency with EPA policies and Bioterrorism Act requirements.

6. Post-award monitoring by EPA. Recipients must submit quarterly status reports to the EPA project officer. Additional requirements may be imposed at time of award, consistent with EPA's assistance policy, to ensure that the project officer is kept aware of progress and issues concerning this training program.

15. ADMINISTRATIVE TERMS AND CONDITIONS TO BE APPLIED TO THESE COOPERATIVE AGREEMENTS

1. In accordance with Section 2(d) of the Prompt Payment Act (P.L. 97-177), Federal funds may not be used by the recipient for the payment of interest penalties to contractors when bills are paid late nor may interest penalties be used to satisfy cost sharing requirements. Obligations to pay such interest penalties will not be obligations of the United States.
2. The recipient understands that none of the funds for this project (including funds contributed by the recipient as cost sharing) may be used to pay for the travel of Federal employees or for other costs associated with Federal participation in this project.
3. The recipient agrees to comply with the MBE/WBE terms and conditions (will accompany the award package a cooperative agreement recipient receives), which state, in part, that recipients must make positive efforts to utilize small businesses, minority-owned firms, and women's business enterprises whenever possible, and also take several steps to further that goal. To view the full text of these procurement procedures under 40 CFR 30.44, go to <http://www.gpo.gov/nara/cfr/> and click on "Retrieve CFR sections by citation" then fill in the boxes with 40 (title), 30 (part), and 44 (section).
4. By accepting this agreement for the electronic method of payment through the Automated Clearing House (ACH) network using the EPA-ACH payment system, the recipient agrees to:
 - (a) Request funds based on the recipient's immediate disbursement requirements by presenting an EPA-ACH Payment Request to your EPA Servicing Finance Office (see EPA-ACH Payment System Recipient's Manual for additional information, which will be sent to everyone awarded a cooperative agreement under this program).
 - (b) Provide timely reporting of cash disbursements and balances in accordance with the EPA-ACH Payment System Recipient's Manual; and
 - (c) Impose the same standards of timing and reporting on sub-recipients, if any.

Failure on the part of the recipient to comply with the above conditions may cause the recipient to be placed on the reimbursement payment method.

5. As required by EPA regulations, the recipient agrees to submit a final **Financial Status Report (FSR) (Standard Form 269)** within 90 days after the end of this budget period to the following address: U.S. Environmental Protection Agency
Las Vegas Financial Management Center
P.O. Box 98515
Las Vegas, NV 89193-8515

When the recipient submits a final FSR, the recipient will, in one of the following ways, make an adjustment for the amount of Federal funds, if any, received in excess of the EPA share of the reported total budget period costs:

- (a) If the recipient is paid through EPA-ACH, they shall, in accordance with the payment guidance dated May 1995 (will accompany the cooperative agreement award package), refund excess assistance funds by either submitting a credit on a current EPA-ACH Payment Request or by sending a check to the lockbox address: U.S. Environmental Protection Agency, Las Vegas Financial Management Center, P.O. Box 371293M, Pittsburgh, Pennsylvania 15251.
- (b) If the recipient is paid by treasury check, they shall, in accordance with the payment guidance dated May 1995, refund excess assistance funds by submitting a check to the lockbox address in paragraph (a).

If funds are due to the recipient at the time of submission of the final FSR, the recipient shall follow the procedures as outlined on the payment guidance to request the appropriate amount of funds from EPA.

6. EPA participation in the salary rate (excluding overhead) paid to individual consultants is limited to the maximum daily rate for a Level IV of the Executive Schedule, which is currently \$513.60 per day (\$64.20 per hour).

7. The recipient agrees to provide EPA Form 5700-53, Lobbying and Litigation Certificate, as mandated by EPA's annual appropriations act. A chief executive officer of any entity receiving funds under this Act shall certify that none of these funds have been used to engage in the lobbying of the Federal Government or in litigation against the United States unless authorized under existing law. The certification must be submitted in accordance with the instructions provided by the EPA award official and is due 90 days after the end of the project period.

8. The recipient agrees to submit to the EPA Project Officer within 90 days after the expiration or termination of the approved project period a final report and at least one reproducible copy suitable for printing. The final report shall document project activities over the entire project period and shall describe the recipient's achievements with respect to stated project purposes and objectives.

9. In accordance with EPA guidance, OMB Circular No. A-122, and the Federal Acquisition Regulations, as appropriate, the recipient agrees that it will not use assistance funds (Federal or non-Federal share) for lobbying or political activities.

10. In accordance with Section 18 of the Lobbying Disclosure Act of 1995, P.L. 105-65, 109 Stat. 691, the recipient affirms either that:

(a) it is not a non-profit organization described in Section 501(c)(4) of the Internal Revenue Code of 1986; –OR–

(b) it is a non-profit organization described in Section 501(c)(4) of the Internal Revenue Code of 1986 but does not and will not engage in lobbying activities as defined in Section 3 of the Lobbying Disclosure Act of 1995.

Appendix A

Points to Consider in a Vulnerability Assessment

1. Characterization of the water system, including its mission and objectives.

Answers to the following system-specific questions may be helpful in characterizing the water system.

- What are the important missions of the system to be assessed? Define the highest priority services provided by the utility. Identify the utility's customers (e.g., public, government, military, industrial, critical care, retail operations, firefighting).
- What are the most important facilities, processes, and assets of the system for achieving the mission objectives and avoiding undesired consequences? Describe the utility facilities, operating procedures, and management practices that are necessary to achieve the mission objectives. Describe how the utility operates (e.g., water source [including ground and surface water], treatment process, storage methods and capacity, chemical use and storage, and distribution system). In assessing those assets that are critical, consider critical customers, dependence on other infrastructures (e.g., electricity, transportation, other water utilities), contractual obligations, single points of failure (e.g., critical aqueducts, transmission systems, aquifers etc.), chemical hazards and other aspects of the utility's operations, or availability of other utility capabilities that may increase or decrease the criticality of specific facilities, processes and assets.

2. Identification and prioritization of adverse consequences to avoid.

- When considering adverse consequences, the water system should take into account the impacts that could substantially disrupt the ability of the system to provide a safe and reliable supply of drinking water or otherwise present significant public health concerns to the surrounding community. In general, water systems should use the vulnerability assessment process to determine how to reduce risks associated with the consequences of significant concern.
- Ranges of consequences or impacts for each of these events should be identified and defined. Factors to be considered in assessing the consequences may include: magnitude of service disruption; economic impact (such as replacement and installation costs for damaged critical assets or loss of revenue due to service outage); number of illnesses or deaths resulting from an event; impact on public confidence in the water supply; chronic problems arising from specific events; or other indicators of the impact of each event as determined by the water utility. Risk reduction recommendations at the conclusion of the vulnerability assessment should strive to prevent or reduce each of these consequences.

3. Determination of critical assets that might be subject to malevolent acts that could result in undesired consequences.

- What are the malevolent acts that could reasonably cause undesired consequences? Consider the operation of critical facilities, assets and/or processes and assess what an adversary could do to disrupt these operations. Such acts may include physical damage to or destruction of critical assets, contamination of water, intentional release of stored chemicals, interruption of electricity or other infrastructure interdependencies.
- Regarding water system vulnerabilities and determination of critical assets, the “Public Health Security and Bioterrorism Preparedness and Response Act of 2002” (PL 107-188) states that the utility must review the vulnerability of its system to a terrorist attack or other intentional acts intended to substantially disrupt the ability of the system to provide a safe and reliable supply of drinking water. The vulnerability assessment shall include, but not be limited to, a review of:
 - Pipes and constructed conveyances
 - Physical barriers
 - Water collection, pretreatment and treatment facilities
 - Storage and distribution facilities
 - Electronic, computer or other automated systems which are utilized by the public water system (e.g., Supervisory Control and Data Acquisition (SCADA))
 - The use, storage, or handling of various chemicals
 - The operation and maintenance of such systems

4. Assessment of the likelihood (qualitative probability) of such malevolent acts from adversaries (e.g., terrorists, vandals).

- Based on the critical assets of the water system, one can determine the possible modes of attack that might result in consequences of significant concern. However, the objective of this step of the assessment is to move beyond what is merely possible and determine the likelihood of a particular attack scenario. This is a very difficult task as there is often insufficient information to determine the likelihood of a particular event with any degree of certainty.
- The threats (the kind of adversary and the mode of attack) selected for consideration during a vulnerability assessment will dictate, to a great extent, the risk reduction measures that should be designed to counter the threat(s). Some vulnerability assessment methodologies refer to this as a Design Basis Threat (DBT) where the threat serves as the basis for the design of countermeasures, as well as the benchmark against which vulnerabilities are assessed. It should be noted that there is no single DBT or threat profile for all water systems in the United States. Differences in geographic location, size of the utility, previous attacks in the local area and many other factors will influence the threat(s) that water systems should consider in their assessments. From this

perspective, water systems should consult with the local FBI and/or other law enforcement agencies, public officials, and others to determine the threats upon which their risk reduction measures should be based. Utilities may also want to review their incident reports to better understand past breaches of security.

5. Evaluation of existing countermeasures.

Having determined how various critical assets, processes, and operations are related to the system's mission and the potential for malevolent actions to cause adverse consequences, the effectiveness of existing security measures and operational practices should be considered. Depending on countermeasures already in place, some critical assets may already be sufficiently protected. This step will aid in identification of the areas of greatest concern, and help to focus priorities for risk reduction.

- *What capabilities does the system currently employ for detection, delay and response?* Identify and evaluate current detection capabilities such as intrusion detection systems, water quality monitoring, operational alarms, guard post orders, and employee security awareness programs. Identify current delay mechanisms such as locks and key control, fencing, structure integrity of critical assets and vehicle access checkpoints. Identify existing policies and procedures for evaluation and response to intrusion and system malfunction alarms, adverse water quality indicators, and cyber system intrusions. It is important to determine the performance characteristics. Poorly operated and maintained security technologies provide little or no protection.
- *What cyber protection system features does the utility have in place?* Assess what protective measures are in-place for the SCADA and business-related computer information systems such as firewalls, modem access, Internet and other external connections, including wireless data and voice communications, and security policies and protocols. Identify whether vendors have access rights and/or "backdoors" to conduct system diagnostics remotely.
- *What security policies and procedures exist, and what is the compliance record for them?* Identify existing policies and procedures concerning personnel security, physical security, key and access badge control, control of system configuration and operational data, chemical and other vendor deliveries, and security training and exercise records.

6. Analysis of current risk and development of a prioritized plan for risk reduction.

- The information gathered on threat, critical assets, water utility operations, consequences, and existing countermeasures should be analyzed to determine the current level of risk. The utility should then determine whether current risks are acceptable or risk reduction measures should be pursued.

- Recommended actions should measurably reduce risks by reducing vulnerabilities and/or consequences through improved deterrence, delay, detection, and/or response capabilities or by improving operational policies or procedures. Selection of specific risk reduction actions should be completed prior to considering the cost of the recommended action(s). Utilities should carefully consider both short- and long-term solutions. An analysis of the cost of short- and long-term risk reduction actions may impact which actions the utility chooses to achieve its security goals.
- Utilities may also want to consider security improvements in light of other planned or needed improvements. Security and general infrastructure may provide significant multiple benefits. For example, improved treatment processes or system redundancies can both reduce vulnerabilities and enhance day-to-day operation.
- Generally, strategies for reducing vulnerabilities fall into three broad categories: 1) sound business practices, 2) system upgrades, and 3) security upgrades. Sound business practices affect policies, procedures, and training to improve the overall security-related culture at the drinking water facility. For example, it is important to ensure rapid communication capabilities exist between public health authorities and local law enforcement and emergency responders. System upgrades include changes in operations, equipment, processes, or infrastructure itself that make the system fundamentally safer. Security upgrades improve capabilities for detection, delay, or response.